

**Metallic Wear During Sand Blasting, by K.  
Wellinger.**

**GERMAN, per, Zeits. Metallkunde, Vol 40,  
No 10, 1949, pp 361-364.**

**(Doc 1351)**

**CRUI 3367**

**314,401**

**Sci - Mechanical, Industrial,  
Civil, and Marine Engineering**

**How 66**

X-Ray Study of Behavior of Steels Under Repeated  
Cyclic Stress, by A. Schaal.

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Brutcher Tr  
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Scientific - Min/Metals

Jan 56 CTS/DEX  
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Recrystallization in Solid Materials, by W. G. Burgers.  
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\*NTIS/NBS TT 71-55131

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June 71

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pp 71-75.

Werner Koester, The Kinetics of Age Hardening.

*Proj. 8541*

61-20752

Löhberg, Karl.

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[Korrosion Intermetallischer Verbindungen]. [196.] 8p.  
(5 tables, 8 refs. 4 graphs omitted).  
Order from SIA \$1.10

61-20752

Trans. of Zeitschrift für Metallkunde (West Germany)  
1950, v. 41 [no. 2] p. 36-39.

DESCRIPTORS: \*Intermetallic compounds, Aluminum  
compounds, Magnesium compounds, \*Corrosion,  
Corrosion inhibition.

(Metallurgy--Corrosion, TT, v. 7, no. 3)

I. Löhberg, K.

Office of Technical Services

Magnesium Rolled Alloys With Zirconium, by  
F. Sauerwald,

GERMAN, per, ~~Zett~~ Metallk, Vol. XLI, No 3, 1950,  
pp 81-87.

TPA3/TIB Tr <sup>T-</sup>No. 4356

23,582

Scientific - Min/Metals

May 55 CTS

The Evaluation of Creep Tests, by E. Ludwig. UNCL

GERMAN, por, Z Metallkunde, Mar 1950, pp 87-91.

British Iron and Steel Ind  
(no number given)

Sc1 - Min/Mat  
Sep 59

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The Systematics of Molten Metals and Alloys Part III,  
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Full translation.

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AEC Tr 1290

Scientific - Minerals/Metals

Jun 52 CTS

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Pittsburgh, by K. Lucke.

GERMAN, per, Z. Metallkunde., Vol. 41, 1950,  
pp 114-124.

\*NTIS/NBS TT 71-55132

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Molten Metal Baths, by W. Geller, 13 pp.

GERMAN, per, Z Metallkunde, Vol XLI, No 4, 1950,  
pp 124-127.

SLA Tr 57-841

Sci - Minerals/Metals  
Feb 58

58, 545

Oxidation of Molten Cadmium and Cadmium ~~alloy~~ Alloys  
by W. von Gruhl, G. Wassermann, 5 pp.

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pp 178-184.

S.L.A. Tr 1230

Sci - Min/Metals  
Jan 57 CTS

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Part I, III, by F. Sauerwald. URCL

GERMAN, Ber, Z Metallkunde, Vol XXIV, No 5,  
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British Iron and Steel Ind  
(no number given)

109,269

Sci - ILL/Int  
Sep 59

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1950 V41 N5 P129-140 70-11232-11F <\*>  
~~Info: 1950 V41 N5 P129-140 70-11232-11F <\*>~~

Order from NTC

The Oxidation of Cadmium and Cadmium-Alloy Melts, by Wolfgang Gtuhl, Gunter Wassermann.

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pp 178-179, 183-184.

AEC IS Trans-24 9232575  
 RDDC Mar 8, 1966

Sci-Chem/ML/M  
Mar 06

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Part III, by F. Sauerwald.

Full translation.

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AEC Tr 1291

Scientific - Minerals/Metals

Jun 52 CTS

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The Sintering of Aluminium Alloys, by A. von Zeerleder  
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TPA3/TIB T 4048

Scientific - Chemistry, metallurgy  
Tr Avail @ The Secretary, Ministry of Supply,  
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S.E.9

Index Aeronautics

5-75-



Grain-Boundary Corrosion in Cu-Si Alloys, by  
O. Haasler.  
GEBMANN, per, Zeit. Metallkunde, No 41, 1950,  
pp 261-264.  
\*NBS TT 70-57805  
Available NBS Only

Sci/Mat  
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New Data on the Strengthening of Crystals During  
Plastic Deformation of Crystals, by Fritz Roha, Albert  
Kochendorfer, 8 pp. UNCLASSIFIED

Full translation.

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No 8, 1950, pp 265-272.

Navy Tr 655/MRL 409

Scientific - Physics

Sep 52 CTS/DET

Study of the Tensile Strength Behavior of  
Metallic Materials at Low Temperatures, by  
Karl Wellinger, Willi Seufert, 13 p.

GERMAN, per, Zeit fur Metallkunde, 1950, Vol  
Vol XLI, No 10, pp 317-321.  
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BLA 60-10172

Sci  
Apr 60  
Vol XIX, No 3

112,052

TT-63-20450

I. Roll, A.  
II. Title: Electrolytic ...

Roll, Albert.  
INFLUENCE OF ULTRASONICS ON ELECTROLYTIC  
PROCESSES. I. ELECTROLYTIC DEPOSITION OF  
NICKEL IN THE ULTRASONIC FIELD. [1963] 17p

4refs  
Order from SLA \$1.60      TT-63-20450

Trans. of Z[eitschrift für] Metallkunde (West Germany)  
1950, v. 41, p. 339-343. (Abstract available)

DESCRIPTORS: \*Ultrasonics, \*Electrodeposition,  
Electrolytes, \*Nickel, Oscillators, Cavitation, Tests,  
Electrolysis.

Topics include: researches still in progress on the  
influencing of electrochemical processes by ultra-  
sonics; production of the ultrasonics of 34 kHz and  
measurement of the acoustic field; measurement of  
the current yield and deposition potential at various  
sound intensities, and, stirring effect of the ultrasonics.  
(Metallurgy, TT, v. 11, no. 4)

Office of Technical Services

On the Crystallographic Indices of Grain Section Sur-  
faces in Metallographic Sections, by H. Kostron.

German, Z. Metallk., Vol XXXI(10), Oct 1950,  
pp 370-377.

The Aluminium Laboratories LTD  
Tr No OT/162

Scientific - Metallographic, crystallographic,  
grain section surfaces

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Lanke, J. C. and Wassermann, G.  
VOLUME CHANGES OF AN ALUMINUM-COPPER  
ALLOY DURING THE VARIOUS STAGES PRE-  
LIMINARY TO PRECIPITATION. [1960] 15p.  
Order from ATS \$22.40      ATS-85M45G

Trans. of ~~Zeitschrift für~~ Metallkunde (West  
Germany) 1950, v. 41, no. 11, p. 381-391.

143,100

(Metallurgy, TT, v. 5, no. 1)

61-12095

I. Aluminum-copper alloys--  
Phase studies

I. Lanke, J. C.

II. Wassermann, G.

III. ATS-85M45G

IV. Associated Technical  
Services, Inc.,  
East Orange, N. J.

Office of Technical Services

On the Influence of Supersonic Vibration on  
Electrolytic Processes: 1. Electrolytic Deposition of  
Nickel in a Supersonic Field, by A. Roll

GERMANY, pat., Z. Metallk., 41. (11), 413-417. Nov 1950.

TPA3/YIE Tr No T 3974

Scientific - Metallurgy

The Influence of Supersonic Vibration on Electrolytic  
Processes: 2.-The Agitating Effect of Supersonic  
Vibration, by A. Roll

GERMANY, per, Z. Metallk., 41 (11), 413-417, Nov  
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TPA3/TIB Tr No T 3975

Scientific - Metallurgy



A. Kussman

Study of conversions in the platinum-iron  
system. 21 pp.  
GERMAN, Zeit. Metallk, Vol 41, 1950, pp 470-  
477  
NASA TT F 14,320

oct 72

On the Structure of Iron Layers Deposited by  
Evaporation, by Carl Heck

Full translation.

GERMAN, per, Zeitschrift fur Metallkunde, Vol  
XLII, No 1, 1951, pp 10-13.

Butcher No 2771  
Price ~~DEX~~ \$4.60  
SLA 57-2514

Also available @ Bell Telephone Tr B91 (MW)

Scientific - Minerals/Metals CTS/DEX

4086

The Binary System Silver-Indium, by Erwin  
Helmer, 6 pp.

GERMAN, per, Z Metall, Vol XLII, 1951, pp 17-19.

ABC 3446

Sci - Chem, Min/Met

Dec 58

78, 253

The Application on Wagner's Theory of Tarnishing  
Reactions to the Development of Alloys  
Resistant to Dry Corrosion, by Karl Hauffe, 18pp  
GERMAN, per, Zeitschrift fur Metallkunde,  
Vol 42, 1951, No 2, pp 34-43  
SLA TT-64-18861

Sci - Meta  
May 67

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High and Low Temperature Sintering Techniques,  
by E. Kieffer.

GERMAN, per, Z. Metallkde, No 42, 1951, pp 97-106.

\*USDC/NBS TT 70-57530

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Sci/Mat  
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On the Shape of the Elastic Stress-Strain Curve  
of Very Pure Aluminum Crystals and the Development  
of Deformation Bands, by K. Inoue, H. Lange, 36 pp.

GERMAN, per, Zeit fuer Metallkunde, Vol XLIII, No 2,  
1952, pp 55-66.

SLA 59-10947

Sci - Minerals/Metals  
Sep 59  
Vol. II, No 2

98,655

FROM: [illegible]  
BY: [illegible]

GRUBER, per, E Metallkunde, Vol XLIX, No 4, 1951,  
pp 97-105.

British Iron and Steel Inc  
(no number given)

Sci-Tech/Int  
Sep 59

98, 250

The Influence of Supersonic Vibration on Electrolytic Processes, The Influence of the Frequency on the Agitating Effect of the Supersonic Vibration, by A. Roll, G. Schrag, 19pp.

GERMAN, per, Z. Metallk., 42 (7), 197-201, July 1951.

SLA TT-68-20439  
TPA3/TID Tr No T 3976

Scientific - Metallurgy



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20pp

GERMAN, ger, Z. Metallk., 42 (8), 238-243, Aug, 1951.

SLA TT-63-20440  
TPA3/MIB Tr No T 3977

Scientific - Metallurgy

Assmus, F. and Pfeifer, F.  
RESISTANCE ANOMALIES OF HIGHLY PERMEABLE  
NI-FE-MO ALLOY. [1962] 11p. (refs. figs. omitted).  
Order from SLA \$1.60

62-16918

Trans. of Zeitschrift für Metallkunde (West Germany)  
1951, v. 42, Oct, p. 294-299.

DESCRIPTORS: \*Nickel alloys, \*Iron alloys, \*Molyb-  
denum alloys, Permeability, Resistance, Heat  
treatment.

Changes in permeability and electrical resistance due  
to additional heat-treating were investigated in a cer-  
tain molybdenum-iron alloy. As a parallel phe-  
nomenon of the well known increase in permeability  
there was found an increase in cold-resistance and de-  
pendence of the hot-resistance on the rate of cooling  
or the holding time at constant temperature. The  
time-temperature law of the change in resistance  
(Metallurgy, TT, v. 8, no. 9)

62-16918  
I. Assmus, F.  
II. Pfeifer, F.

Office of Technical Services

A New Viewpoint on Strain Hardening of Metals, by  
J. Bingel

GERMAN, per, Z. Metallk., 40 (10), 309-315, Oct 1951.

TPA3/TIB Tr No T 3991

Scientific - Metals

On the Reaction Between Metals and Non-Metallics  
to Form a High Melting Point Ceramic Material,  
by E. Meyer-Hartwig.

GERMAN, per, Z. Metallkde., Vol 42, 1951,  
pp 302-308.

\*NTIS/USDC/NBS TT 71-55065

Available NBS Only

May 71

Semi-Metals With Continuous Transitional Properties  
Between Metal and Ceramics, by Eberhard Meyer  
Hartwig, 12 pp.

GERMAN, part, Z fuer Metallkunde, Vol XLII, No 10,  
1951, pp 302-308.

ACSI I-2440  
ID 2227678

Sci - M/M  
Dec 63

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G.M. L.  
THE LAMELLAR GROWTH OF CRYSTALS. I. EX-  
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Order from ATS \$16.70      ATS-02N49G

Trans. of Z[eitschrift für] Metallk[unde] (West  
Germany) 1951, v. 42, p. 336-340.

rl-22158

- I. Crystal Growth
- I. G.M. L.
- II. ATS-02N49G
- III. Associated Technical  
Services, Inc., East  
Orange, N. J.

10M132

Office of Technical Services

(Physics--Solid State, TT, v. 5, no. 11)

Sintering Study of Al, by E. Boenisch.  
GERMAN, per, Z. Metallkde, Vol 42, 1951, pp 344-348.  
\*NTIS/USDC/NBS TT 71-55043  
Available NBS Only

May 71

Effect of Magnetism on Diffusion in Some Ni-Cu  
Alloys, by W. Koster.

GERMAN, per, Z. Metallkde, Vol 42, 1951,  
pp 387-391.

\*NTIS/USDC/NBS TT 71-55059

Available NBS Only

May 71



The Influence of Lead Upon the Modulus of  
Elasticity and Upon Damping of Copper, Silver,  
Brass, by Koster, Werner and Bangert, Lothar,  
9 pp.

GERMAN, per, Zeit fur Metallkund, Vol XLII,  
No 10, 1951, pp 391-394.

OTS 60-15481

Sci

188, 926

30 Mar 62

Investigations on Sintered Aluminium, by Edith  
Boenisch, W. Wiederholt.

GERMAN, per, ~~Zinn~~ Metallk, Vol XLII(11), Nov 1951,  
pp 344-348.

Aluminium Laboratories, Ltd  
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On the Rolling- and Recrystallization Textures of  
Pure Aluminium, by H. J. Walbaum, 11 pp.

GERMAN, per, Z. fuer Metallkunde, Vol. XLII, No 12,  
1951, pp 371-376.

SLA 63-10003

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Jul 63

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Graf, L.  
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MECHANISM OF THE GROWTH OF CRYSTALS  
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RIUM. [1961] 13p.  
Order from ATS \$23.95

ATS-03N49G

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See also 61-22158

61-22159

- I. Crystals--Growth
- I. Graf, L.
- II. Title: Mechanism...
- III. ATS-03N49G
- IV. Associated Technical  
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Office of Technical Services

(Physics--Solid State, TT, v. 5, no. 11)

The Effect of Extremely High Cooling Rate  
on the Solidification and Structure of  
Binary Alloys, by G. Falkenhagen,  
Wilhelm Hofman. 41 p.  
GERMAN, per, Z. Metallk, No 41, 1952,  
pp 69-81. 9228243  
AEC SC-T-64-2011

Sci/MEM  
May 66

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Application of the Band Model of the  
Electron Theory to the Crystal Chemistry of  
Alloys, IV. Distortion of Simple Structures, by  
H. Schubert

G. F. SMITH, per, Z Metallkunde, Vol. XLIII, 1952,  
p. 1-10.

Nat'l Res Council Canada TT 338

Scientific - Chemistry  
JCS CTS/DEK

16,870

Sintering of Tungsten Carbide - Cobalt Compositions  
as a Surface Reaction, by W. Davidl

GERMANY, Zeitschrift Metallkunde, Vol 43, 1952, No 1,  
pp 20-22.

Butcher Order No 3067

Scientific - Metallurgy Price \$4.90

1380

Effect of Magnetism on Diffusion In Sintered  
Ni-Zn Alloys, by W. Koster.  
GERMAN, per, Z. Metallkde, Vol 43, 1952,  
pp 37-39.

\*NTIS/USDC/NBS TT 71-55060  
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May 71



Contribution to the System Molybdenum-Silicon,  
by R. Kieffer, E. Cervenka

GERMAN, Zeitschrift für Metallkunde, Vol 43, 1952,  
No 4, pp 101-105.

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Butcher Order No 2960

Price ~~XXXXXX~~ \$5.80

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Scientific - Metallurgy

Internal Friction of Liquid Au-Ag Alloys by  
E. Gebhardt, M. Becker.

GERMAN, Z. Metallk, Vol LXII, No 4, April 1952,  
pp 111-117.

TIA3/TIB T 3981

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Scientific - Min/Metals

13,965

Alloys of Titanium With Copper, Silver, and Gold, by  
E. Raub, P. Walter, M. Engel.

Full translation.

GERMAN, per, Zeitschrift fur Metallkunde, Vol XXXVIII,  
No 4, 1952, pp 112-115.

Brutcher Tr 3017

Scientific - Alloys, Ti-Cu, Ti-Ag, Ti-Au

On Slip Shrinkage in Metal-Metal Oxide Mixtures and  
in Boron Carbide, by W. Dawid, 7 pp.

GERMAN, Proc. 2 Intern. Metallurgical, Vol XLII, 1952,  
pp 138-142.

ABC Pr 3/97

Sci - Chem

May 59

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Influence of Stress and Temperature on Stress  
Corrosion Tests, by Otto Lissner, 5 pp.

GERMAN, per, Z. Metallkunde, Vol. XLIII, May 1952,  
pp 147-150. 9215541

AEC-Tr-6127

Sci - Phys

Dec 63

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Theoretical and Experimental Fundamentals  
of Nondestructive Material Testing by the  
Eddy Current Method, I. The Search Coil  
Method, by Fritz Foerster,  
GERMAN, per, Zeitschrift für Metallk., Vol  
XLIII, 1952, pp 163-171. P911078666  
AEC OINL-tr-1297

Sci-Materials  
Nov 66

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63-16832

1. Schaaber, O.

Schaaber, Otto.  
NEW DEVELOPMENTS IN THE FIELD OF CONTINUOUS CASTING. [1963] [27] p. (figs. omitted) 42 refs.  
Order from SLA \$2.60 63-16832

Trans. of [Zeitschrift für] Metallkunde (West Germany)  
1952, v. 43, p. 181-190.

DESCRIPTORS: \*Casting, \*Steel, \*Copper, \*Aluminum.

After general review of the process of solidification in the usual ingot casting and in continuous rodcasting, the factors determining the degree of difficulty in casting are discussed. The casting properties of steel, copper and aluminum are compared. (Author)

(Metallurgy, IT, v. 10, no. 8)

Office of Technical Services

On the Kinetics of the Ageing of Aluminium-Silver  
Alloys, Part IV, by G. Ziegler

GERMAN, per, Z Metallkunde, Vol XLIII, Jun 1952,  
pp 213-216.

Fulmer Research Institute  
46 OT/701

Scientific - Minerals/Metals  
CTS/DEK

8912



On the Small Angle Scattering of X-Rays on the  
Structure of Age-Hardening Alloys, by A. Guinier

GERMAN, per, Z Metallk, Vol XLIII, 1958, pp 217-223.

R Fulmer Research Institute  
41 OT/631

Scientific - Minerals/Metals  
CIS/DEX

8227

Heat Transmission in Metal Melts in the Immediate  
Neighbourhood of the Liquid/Solid Phase Boundary,  
by O. Schmaier.

Full translation.

GERMAN, Z. Metallk., Vol 43, No 7, pp 251-258, July 1952

Aluminium Laboratories, LTD. Tr No  
B-TH-104-52 OT 434

*also have checked 279*

Scientific - Metallurgy

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Aluminum and Gas, II Part I., by I. H. Kostren

GERMANY, per, Zeitschrift für Metallkunde,  
Vol XLIII, No 6, 1952, pp 269-277.

Brutcher Tr 3276

AEC Tr 4923  
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Scientific - Minerals/Metals

Jul CTS/DEK Price \$13.20

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Aluminum and Gas. Part II, by H. Kostron, UNCLASSIFIED.

GERMAN, per, Zeitschrift Fur Metallkunde, Vol XLIII, No 8,  
1952, pp 277-284.

Brutcher Tr No 3277

Scientific - Min/Metals

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Development and present Status of Continuous  
Casting of Nonferrous Metals in the U. S., by  
P. Brenner, 17 pp.

GERMAN, per, Z Metallkunde, Vol XLIII, 1952,  
pp 325-332.

SLA 2313

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Sci - Minerals/Metals  
Oct 57

Aluminum and Gas, Part III, by H. H. H. H.,

GERMAN, per, Z. f. Metallkunde, Vol XLIII,  
No 6, 1952, pp 373-381.

Brutcher Tr No 3278

Scientific - Min/Metals

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Aluminum and Gas. Part IV. (Concluding), by  
H. Kostron.

*German*  
~~English~~, per, Zeitschrift Metallkunde, Vol. XLIII,  
No 8, 1952, pp 381-387.

Brutcher Tr  
No 3279

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Scientific - Minerals/Metals CTS/DEX

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Contributions to the Metallography of Light Metals.  
IV. On the Crystallization of the Residual Melt in  
Commercial Aluminum Alloys, by Hans Kostron,  
Margarete Schippers, 13 pp.

GERMAN, per, Zeit. für Metallkunde, Vol XLIII, No 9,  
Sep 1952, pp 303-306.

S.I.A. 1021

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Scientific - Metals/minerals



Preparation of Fe-Zn Alloys From  
Amalgams (slightly abridged), by  
F. Lühl; A. Demel.  
GERMANY, per, Zeitschrift für Metallkunde,  
Vol 43, No 9, 1952, pp 307-310.  
DISI 4111

EE-Germany  
Sci/MSM  
May 65

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Tinning and Soldering of Aluminum by Ultrasonics,  
by P. Wenk, H. Boljahn

DE  
GEIDMAN, per, Zeitschrift fur Metallkunde,  
Vol XLIII, No 9, 1952, pp 322-324.

Brutcher Tr 3231

Scientific - Minerals/Metals  
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Price \$2.90

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The Creep of Aluminium Wire Spirals, by G. Lucas,  
H. Gering

GERMAN, par, Z. Metallk, Vol XLIX, No 10, Oct 1952,  
pp 341-349.

TPA3/TIB T 403<sup>82</sup>93

Scientific - Minerals/Metals  
CTB/DEX

8187

On the Constitution Diagram of the System Copper-Silver-Indium. II. Equilibrium Course Up to Indium Contents of 30%, by Erich Gebhardt, H. Manfred Dreher, 13 pp.

GERMAN, par, Z Metallkunde, Vol XLIII, 1952, pp 377-388.

ABC 17 3/76

Sci. - Metallurgy/Met

Apr 59

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The Influence of Alloying Constituents and Treatment  
with Metallic Oxide Vapours on the Oxidation Rate  
of Nickel and Titanium, by H. Pfeiffer, K. Hauffe.

4-3

GERMAN, Ref. 2. Metallk, Vol. LXI, No 10, Oct 1952,  
pp 364-359,

AEC TR 2507

TRAS/713, T 4130

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Scientific-min/metals

II. Bubbles and Pores in Malleable Materials, by  
Hans Kostron, 49 pp.

GERMAN, per, Z Metallkunde, Vol XLIII, No 11, 1952,  
pp 373-387. 9097854

AEC Tr-4949

Sci - Min/Metals  
Apr 62

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Investigation on Zinc Alloys Made from "Five-Nine"  
Zinc (99.999%), by W. Hofmann, F. Erdmann-Jechitzer,  
H. Hanemann  
UNCLASSIFIED

GERMAN, per, Z. Metallk., Vol XLIII, No 12, 1952,  
pp 417-421

TPA3/MTB T 4226

Scientific - Min/Metals

April 54 CTS/DEX

11,563

Internal Notch Effect and Surface Sensitivity  
Under Cyclic Bending Stresses. Part IV of  
Processes Occurring in Metals Under Tensile and  
Fatigue Stresses, by C. Petersen

GERMAN, no par, Z. Metallkunde, Vol XLIII, 19  
No 12, 1952, pp 429-433.

Bratcher Tr 3157

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Sci - Min/Metals  
Sep 56 CTS

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Aluminum and Gas. II. Blisters and pores in Plastic  
Materials, by Hans Kostron.

GERMAN, per, Z Metallkunde, Vol XLVI, No 11, 1952,  
pp 373-387.

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Sci - Min/Metals  
Nov 61.

X-Ray Methods for the Direct Measurement of Stress  
Components Without the Use of Reference Lines, by  
E. Oswald, 13 pp.

GERMAN, per, Z. Metallkunde, Vol XXXV, Pt 1, Jan  
1953, pp 19-21.

SLA 58-648

Sci

Aug 59

95. 6 73

The Influence of Lead Upon the Modulus of  
Elasticity and Upon Damping of Copper, Silver,  
Brass, by Koster, Werner and Bangert, Lothar,  
9 pp.

GERMAN, per, Zeit fur Metallkunde, Vol XLII,  
No 10, 1951, pp 391-394.

OTS 60-16481

Sci

30 Mar 62

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